



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/783,713

02/20/2004

Lawrence A. Wade

020859-003010US

5592

20350 7590 06/30/2008
TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER

SMITH, JOHNNIE L

ART UNIT

PAPER NUMBER

2881

MAIL DATE

DELIVERY MODE

06/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/783,713	Applicant(s) WADE ET AL.	
	Examiner JOHNNIE L. SMITH II	Art Unit 2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/06, 06/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of group II in the reply filed on 03/03/2008 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 16-26 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5824470 (Baldeschwieler et al).
4. In reference to claim 16, Baldeschwieler teach a device having: a nanostructure having a surface (column 3 lines 15-20); and a passivation layer coating all but a unique site on the surface (column 3 lines 20-30), the unique site exhibiting at least one of chemical, biological, electrical, and physical activity (column 3 lines 30-38).
5. In reference to claims 17-18, Baldeschwieler teach a device wherein the nanostructure comprises a carbon nanotube selected from the group consisting of a

single-wall carbon nanotube (SWNT), a multi-wall carbon nanotube, and a bundle or rope of SWNTs (column 26 lines 63-65).

6. In reference to claim 19, Baldeschwieler teach a device wherein the passivation layer comprises at least one of a polymer, a semiconductor, and a metal (column 6 line 49- column 7 line 67).

7. In reference to claims 20-21, Baldeschwieler teach a device comprising a moveable probe connected to the nanostructure (column 28 lines 25-30) wherein the moveable probe is selected from the group consisting of a scanning probe microscope (AFM), a nanoscanner, and a nanopositioner (SPM).

8. In reference to claim 20, Baldeschwieler teach a device wherein the unique site comprises an exposed portion of the nanostructure in communication with a source of electrical power (column 13 lines 18-22).

9. In reference to claims 23-24, Baldeschwieler teach a device comprising a material attached to the unique site, wherein the material is selected from the group consisting of a carboxyl group, an amine group, and a molecule covalently bound to one of a carboxyl group and an amine group (column 14 lines 23-36).

10. In reference to claims 25-26, Baldeschwieler teach a device wherein the material comprises a molecule bound at the unique site with a covalent bond and

wherein the functional group comprises a molecule bound at the unique site with other than a covalent bond (column 3 lines 27-31).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHNNIE L. SMITH II whose telephone number is (571)272-2481. The examiner can normally be reached on Monday-Thursday 6-4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on 571.272.2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JOHNNIE L SMITH II
Examiner
Art Unit 2881

JLSII

/ROBERT KIM/
Supervisory Patent Examiner, Art Unit 2881